US Army Corps of Engineers
Pittsburgh District

Upper Ohio Navigation Study, Pennsylvania

Authorization

May 16, 1955 resolution adopted by the Committee on Public Works of the U.S. Senate and March 11, 1982 resolution adopted by the U.S. House of Representatives Committee on Public Works and Transportation.

Location and Description

Emsworth, Dashields and Montgomery Locks and Dams are the uppermost navigation structures on the Ohio River, located 6.2, 13.3 and 31.7 river miles below the "Point" in Pittsburgh, Pennsylvania. All three facilities have dual lock chambers with 110' x 600' main chambers and 56' x 360' auxiliary chambers; the smallest capacity chambers of the Ohio River navigation system. Emsworth and Montgomery Dams are the oldest gated structures on the Ohio River, while Dashields Dam is the only fixed-crest dam on the river.

Emsworth Locks and Dams
River Mile 6.2
Constructed 1919 – 1922; 1935 - 1938

Dashields Locks and Dam
River Mile 13.3
Constructed 1927 – 1929

Montgomery Locks and Dam
River Mile 31.7
Constructed 1932 – 1936

Purpose of Study

The Upper Ohio Navigation Study will investigate opportunities for maintaining and improving commercial navigation on the upper Ohio River in Pennsylvania and will evaluate the potential for integrating ecosystem restoration features into long-range plans for this river reach. The study will consider engineering, economic and environmental factors to evaluate long-term navigation needs in the context of sustaining human communities and the river's ecosystem. Findings and recommendations from the recently released draft Ohio River Mainstem Systems Study will provide substantial background information from a system-wide perspective to this site-specific navigation feasibility study.

Navigation Objectives

The focus of the upper Ohio River navigation feasibility study is to develop the best plan for maintaining safe, reliable, efficient and environmentally sustainable navigation on the upper 40 miles of the Ohio River. Navigation on the upper Ohio is currently provided through Emsworth, Dashields and Montgomery Locks and Dams, operated by the U.S. Army Corps of Engineers. Constructed during the 1920's and 1930's, these are the oldest structures of the Ohio River navigation system and are in an advanced state of deterioration. Lock wall surfaces may appear in good condition, but interior concrete deterioration and cracking could lead to costly repairs and chamber closures.

The lock chambers of the Emsworth, Dashields and Montgomery facilities are sized to standards established in the late 1800's and are the system's smallest lock chambers. The 110' x 600' main chambers are one-half the capacity of current standard 110' x 1200' locks that accommodate modern tows. This capacity problem is greatly compounded during main chamber closures, when traffic is required to pass through the 56' x 360' auxiliary chambers. These size constraints sometimes create bottlenecks both for commercial and pleasure craft locking through and can cause delays and inefficiencies which affect consumer costs of commodities transported on the river. This feasibility study will evaluate the economic factors related to construction of larger locks and other alternatives to sustain the reliability of commercial navigation on the upper Ohio River.

Environmental Responsibilities

As a federal agency, the objective of Corps' planning studies is to contribute to national economic development consistent with protecting the Nation's environment. National environmental statutes, such as the National Environmental Policy Act (NEPA), the Endangered Species Act, the Fish and Wildlife Coordination Act and others, place certain requirements and responsibilities on federal agencies to consider environmental consequences of their actions, and to mitigate for unavoidable adverse impacts. In addition, ecosystem restoration is one of the primary missions of the Corps' civil works program and is to be given equal consideration with other study purposes in plan formulation. An initial step in implementing these responsibilities is the NEPA scoping process. Through the scoping process, the Pittsburgh District is seeking public comment on the Upper Ohio Navigation Study. Public input will help identify important resources and significant issues to be addressed in relation to a proposed action and alternatives through preparation of an Environmental Impact Statement.

The Environmental Impact Statement will assess the environmental effects of the recommended plan and any reasonable alternatives, including the "no action" alternative, which essentially retains the existing navigation system. It will also address the environmental effects of any recommended ecosystem restoration measures necessary to improve river resources in an environmentally sustainable manner. The present study area includes the upper 40 miles of the Ohio River and portions of its tributaries in Pennsylvania that are influenced by Emsworth, Dashields and Montgomery Locks and Dams. The study area may be refined based on input received during the scoping process.

Public Involvement

Scoping meetings provide an initial opportunity for the public to express their views and concerns and ensure their interests are considered. As the study progresses, the Corps invites continuing public participation to promote open communication and more informed decision-making. The Corps will maintain a project mailing list and will distribute periodic updates, announcements and notices of study document availability. Important information also will be updated on the Pittsburgh District's internet page for the study www.lrp.usace.army.mil/pm/upper_ohio.htm.

Public comments are welcome throughout the study process. Formal opportunities for public participation throughout the feasibility study include attendance at public meetings, correspondence, e-mail, and review and comment on the draft and final versions of the Environmental Impact Statement. Comments or requests to be placed on the study mailing list can be mailed to: U.S. Army Corps of Engineers, Pittsburgh District, ATTN: Conrad Weiser; 2200 William S. Moorhead Federal Building; 1000 Liberty Avenue; Pittsburgh, PA 15222-4186 or e-mailed to: ohiorivernfs@usace.army.mil.

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Small locks and lock closures cause congestion at Emsworth.

A crack in the lock wall at Montgomery is just one example of the advanced state of deterioration of aging locks and dams.

An embayment near Montgomery Locks and Dam offers wildlife habitat.

Coal is unloaded from a barge at an industrial site on the upper Ohio River.